From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: had@halcyon.com
Subject: **WTF:W-J RX CRT
Message-ID: <199608071642.AA29178@halcyon.com>

Hi everybody,
Just got a Watkins-Johnson RS111-1B-17S receiver. In pretty good
shape, everything working. THE PROBLEM: someone has removed the CRT
and its mounting hardware. Can anybody point me in the right
direction to find one of these rectangular face'd CRTs. Also, looking
for Schematics, manuals, service info, etc.

Thanks for the help

Hadley, K7MLR
had@ halcyon.com   hadley@arva.com

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: "Paul Bock" <pauboc@smtplink.pulse.com>
Subject: Re: **WTF:W-J RX CRT
Message-ID: <9607078394.AA839448251@smtplink.pulse.com>

Why not give W-J a call at 301-948-7550 (Gaithersburg, MD) and ask for
customer service? Couldn't hurt.....

73,

Paul, K4MSG

______________________________ Reply Separator _________________________________
Subject: **WTF:W-J RX CRT
Author: had@halcyon.com at SMTP

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: jmlckwd@mindspring.com (Max Lockwood)
Subject: Re: Aligning at 50.75KC
Message-ID: <199608070324.XAA01301@borg.mindspring.com>

>Karl, use the BFO oscillator as your signal generator, You need a freq counter
>to set the frequency at or close to 50.75KC. Align the IF's and
>after that tune in WWV and set the bfo to zero beat.
>
>It works Great.
>
>Thanks to the guys on the list, not my idea, but I used it once.

>Seems HeathKit did at one time in their assembly instructions.

Indeed. Heath's inventive engineers devised this method for aligning the 50.5 Kc IF in the Mohawk.

Ever notice on the Mohawk front panel BFO markings a little tick mark just to the right of center? That's the mark for setting the BFO to 50.5 specifically for doing the alignment.

Darn clever, those guys.....

73,

Jim - km6nk/4

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: Jeffrey Herman <jherman@hawaii.edu>
Subject: Re: Aligning at 50.75KC
Message-ID: <Pine.GSO.3.93.960806180017.3483E-100000@uhunix5>

I have a Heath HW-202 (2M xcvr); to align the rcvr the manual has you shift some wires around to run the xmtr's xtal osc - it provides a perfect signal source.

As Jim said, those Heath folks were clever! We'll never see a company like that again.

Jeff KH2PZ / KH6

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: tomrice@netcom.com (Tom R. Rice)
Subject: AR-88 Meters: possible custom job?
Message-ID: <199608071657.JAA00564@netcom18.netcom.com>

From: Andy Wallace <wallace@mc.com>
Subject: AR-88 meter dimesions (approx)

AR-88 meter is round, with the needle resting position to the right. I'm not sure what the movement rating is, but the face says

DB ABOVE

below the scale. The scale is calibrated from -6 to 100, with one hash mark beyond each end. The bottom edge of the scale says "MODEL 25" and "9574".

> According to my manual, the meter is a 5-milliamp movement unit.

Someone could probably make a small fortune providing replacement meters, or perhaps making a looks-stock scale which reads backwards for a more common movement to be substituted.

> We have a meter outfit here in Livermore, Standard Meter Lab, which, among other things, assembles custom meters from the basic parts obtained from Triplett, etc.
>
> They also have the capability of making custom dial plates for the meter movements, using Photoshop-type software and a real printing process: very pro stuff.
>
> I've had requests from several AR-88 lovers about the possibility of having a run of custom meters made. If there is sufficient interest, I'll go down and talk to the Standard people about it. (They're pretty friendly to me right now, as I've just dropped almost $200 bucks there for various meter repairs ;-)
>
> Obviously, this wouldn't be cheap and we'd need a pretty sizeable order to get the cost per meter down, but it's something to look into.
>
> (I expect we'd also need a _real_ meter to use as a sample. Who'd have the courage to furnish one?)
>
> Your comments are solicited........
>
> 73 de WB6BYH

--
"Start off every day with a smile and get it over with." --W.C.Fields
Tom R. Rice
tomrice@netcom.com
CIS: 71160,1122

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: drhydro@ames.net (Paul Nelson)
Subject: BAs at Oshkosh
Message-ID: <v01540a00ae2dd3f1f860@[1.1.1.1]>

At the Experimental Aircraft Association's annual fly-in in Oshkosh, WI, there is a thing called the FlyMarket. Part of it is a consignment sales area where folks can bring aircraft-related stuff to sell during the week-long event (some with a pretty darn tenuous connection to aviation). Lotsa stuff- instruments, airframe parts, RADIOS, engines, almost-complete aircraft and wrecks... like a hamfest for airyplanes.

anyway, an honest-to-Pete BA Sighting was made in the avionics area.....

An unpainted BC-453, modified with an AC power supply sittin' on the dynamotor mounting.. xfmr and rectifier toob sticking up over the back of the poor thing. the tag said $150 ! ! ! Unsold when I left Monday. Any bets?

BTW, my non-radio BA stable includes a 1946 Cessna 140 that I've owned for thirty years... and a '68 Mercedes 280SL that I drove off the showroom floor. (ran a Heath Twoer from the 140 a couple of times- the SL has had many BAs in the trunk over the years!) don't hit me, Jack- I couldn't resist after I just waded thru seven days of postings 'cause I blew the email to set the list to postpone......

```
Paul Nelson W5GNF               "When I go, I want to go quietly, in my
Ames, Iowa                       sleep, like my grandfather- not
                                 screaming, like his passengers."
(DrHydro@ames.net)
                                 "More hay, Trigger?"
                                 "No thanks, Roy, I'm stuffed."
```

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: "Rhett T. George" <rtg@ee.duke.edu>
Subject: BC 221
Message-ID: <9608071840.AA12919@feller>

 - Greetings -

A question or two, please, regarding the BC 221 and using same. Has anyone experienced operational differences between those of different manufacturers? The BC-221-T, Zenith, serial #11264, is in a metal case with single clasp on front panel cover and has the antenna terminal on top. No order number is given. There is a red stamped SCA880A on the case. The BC 221-AA, Philco, serial #2766, is in a wooden case with two clasps and has the antenna terminal on the front panel. Order # 17133-PH-42.

Are there circumstances where the BC 221 is preferred over the AN URM-32A in the applicable frequency range. It seems that the latter is an updated BC 221 with harmonics to about 1050 MHz (or mc)? One with the A suffix was turned out by Burton-Rodgers, serial # 5034, on order #NOm 71964.

Your collective wisdom on these frequency meters greatly appreciated and gratefully accepted.

73 Rhett George - KE4HIH

```
From boatanchors@theporch.com  Wed Aug  7 16:47:39 1996
From: DACDXX21.TL39597@sswemx00.dx.deere.com
Subject: Books FS
Message-ID: <0014210002997083000002*@MHS>

         Date: 08/07/96
         From: TOM N LAIRD 5-5777                           TL39597  - DACDXX21
           To:                                              INTERNET - DACDXE01
      Subject: Books FS
-------------------------------------------------------------------------------
```

Books will go on a first come, first serve basis. If payment is not received in a reasonable timeframe, the next person wanting it will be contacted and the origional check returned if received. Shipping will be $3 per book unless you buy more than one, in that case shipping will be $3 for the lot.

1) BASIC ELECTRICITY by Paul Zbar Average condition 1966 (old textbook)
   8 1/2" X 11" format softbound, 211 pages.....$7

2) BOOK of ASTM STANDARDS (part 8), 1969, Magnetic properties; materials for
   electron devices, 1037 pages, hardbound, near perfect condx....$20

3) ELECTRICAL MATERIALS HANDBOOK by Allegheny Luflum Steel Corp. 1961
   334 pages excellant condition, hardbound 7" X 10" format....$15

4) HANDBOOK of INDUSTRIAL ELECTRONIC CIRCUITS by Markus and Zeluff 1948
   covers AF circuits, CRT's, limiter circuits, switching circuits,
   oscillator circuits, PS circuits, VR circuits and more. 272 pages
   hardbound, excellant condition, 8 1/2 X 11 format....$18

5) PRINCIPLES of ELECTRONIC INSTRUMENTS by Gordon Partridge 1959
   Electrical Engineering series, 393 pages hardbound, excellant
   condition.....$12

6) POWER PLANT PRACTICES....Steam Power Plant Auxiliaries and Accessories
   by Terrell Croft, 1922 vintage, mint condition, hardbound,
   447 pages......$20

7) COIL WINDING 3rd edition by William Querfurth, 1968, shows coil
   winding machines and details, lots of charts and scales, front
   cover refers to: George Stevens mfg. Co. Inc...Chicago. 215 pages
   softbound, perfect condition....$20

I will be leaving for the Andover, Mass. area. the week of 12 Aug for one week. Please take this into response consideration.

Tom Laird WC9M Moline, Il
tl39597@deere.com

```
From boatanchors@theporch.com  Wed Aug  7 16:47:39 1996
From: DACDXX21.TL39597@sswemx00.dx.deere.com
Subject: RE BOOKS FS
Message-ID: <0014210003000221000002*@MHS>

         Date: 08/07/96
         From: TOM N LAIRD 5-5777                          TL39597  - DACDXX21
           To:                                             INTERNET - DACDXE01
      Subject: RE BOOKS FS
-------------------------------------------------------------------------------
```

The coil winding book is sold!

Tom Laird WC9M

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: "Robert S. Ross" <radiorob@serix.com>
Subject: Collins 51S-1 Current Price?????
Message-ID: <199608062145.VAA04008@cm.serix.com>

Hello Guys:

I just found out that I may have a line on a Collins 51S-1 Rack Mount Receiver in nice shape and good working order. I have not seen the radio yet...so I do not know just "How nice it is???". This receiver does not have a cabinet. I have not seen many of these for sale around here lately...so I really don't know what the current going prices on these are. I'd really like to purchase this receiver....but I don't want to insult the seller...nor do I want to sell the farm! If anyone can help me out with a fair price range on the 51S-1...assuming it is a real nice one, I'd really appreciate it. I already have a Collins 651S-1 Receiver...and this would make a great companion to the solid state 651S-1.Ok all you Collins collectors....please help me out on this one....

Thanks...ROB.

Robert S. Ross
VA3SW
London, Ontario, CANADA

Radio DX'er
Antique Radio Enthusiast

Stuck in a time warp..and lost in the ozone again!!!!!

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: "Charles R. CHIP Veres 305-532-4515" <VERESC@mail.firn.edu>
Subject: RE: Collins 51S-1 Current Price?????
Message-ID: <C81ZWKTK2LDM*/R=FIRNVX/R=A1/U=VERESC/@MHS>

Several years ago at a hamfest I saw two 51-S-1's, one for $650 and the other for $750, but neither sold. There was also a clean R-390A with manuals for $160. Guess which I bought?!
73, Chip

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: Ronald Steinberg <rhstein@interaccess.com>
Subject: Collins Collectors Association Summer meeting in Cedar Rapids
Message-ID: <199608070307.WAA05771@psycfrnd.interaccess.com>

I have room for 2 more persons in my car that is leaving for the Collins
Collectors
Association Summer meeting in Cedar Rapids the afternoon of this Friday
the 9th and returning to the Chicago area during the afternoon of Sunday
the 11th.
I will be leaving and returning from the O'Hare Field area.If you would like
to go
give me a page.
RON K9IKZ   PAGER   847 339 5690

```
----------------------------------------------------------
 Ron Steinberg   K9IKZ          rhstein@interaccess.com
                 512 S Cherry      Itasca    Il   60143
               630 773 3583 hm      630 773 0822 hm fax

     At work:    rentcom@mcs.com    http://www.rentcom.com
                 847 678 7000 wk    847 678 9378 wk fax
```

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: rmorgan@us.edu (Robert Morgan)
Subject: Cost of Collins ham gear
Message-ID: <1.5.4.32.19960807153509.006859cc@us.edu>

I've been organizing and looking through boxes of printed radio material in
my collection and I stumbled upon a 1974 Collins ham gear catalog. You
can't look through this catalog without getting pretty interested in this
stuff. So here's my question. What's the going price for these items these
days (assume working and in good, not necessarily perfect condition):

KWM-2A
75S-3C
32S-3A

and, what the heck

30L-1

and, why not...

30S-1

May be too rich for my blood, but...

Thanks,

Bob

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: paul Veltman <veltman@netcom.com>
Subject: Re: Cost of Collins ham gear
Message-ID: <Pine.3.89.9608070917.A25248-0100000@netcom12>

West Coast Prices

On Wed, 7 Aug 1996, Robert Morgan wrote:

> I've been organizing and looking through boxes of printed radio material in
> my collection and I stumbled upon a 1974 Collins ham gear catalog. You
> can't look through this catalog without getting pretty interested in this
> stuff. So here's my question. What's the going price for these items these
> days (assume working and in good, not necessarily perfect condition):
>
> KWM-2A $700 - $900
> 75S-3C   I haven't seen these two on the market. Mostly S-1s and S-3Bs
and 32S-1s for around $350 - $500

32S-3A
>
> and, what the heck
>
> 30L-1 $600 - $800
>
> and, why not...
>
> 30S-1 $1,500
>
> May be too rich for my blood, but...
>
> Thanks,
>
> Bob
>
>

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: "Charles R. CHIP Veres 305-532-4515" <VERESC@mail.firn.edu>
Subject: Re: Cost of Collins ham gear
Message-ID: <C59ZWKTLFIWF*/R=FIRNVX/R=A1/U=VERESC/@MHS>

Difference between a 75S3B and 75S3C is that the 3C contains an extra
crystal deck, so you can tune the ham bands, plus an equal number of
arbitrary regions in the HF spectrum. Worth a $50 (?) premium.
73, Chip

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: pmills@cyberhouse.com (Phil Mills)
Subject: Re: Cost of Collins ham gear
Message-ID: <199608072013.PAA02422@ns.cyberhouse.com>

  So here's my question. What's the going price for these items these
>days (assume working and in good, not necessarily perfect condition):
>
>KWM-2A
>75S-3C
>32S-3A
>
>and, what the heck
>
>30L-1
>
>and, why not...
>
>30S-1
>

KWM-2A, with plug in relays, $600 up...KWM-2 with wired relays, $450 up.
75S3C and 32S3A, don't know for sure, I think they are at a premium but
Several months back, I paid $900 for a 75S3 with cw filter and 32S3
,both in VG condition. I see 30L-1's for $500 to $600 at hamfests...
A few months back, I paid $500 for one in VG condition with the extra
plus of it having 572B's in it. 30S-1, I recently traded one off and
consider $1200-1600 a range depending on the usual variables. Other
stuff, I've seen a G-VG 312B5 travel the hamfest circuit with a price
of $500 while I heard stories of them going at $750 at Dayton.

73, Phil

Phil Mills, AB5TH
pmills@cyberhouse.com
713-992-5762
Friendswood, TX   (just south of Houston)

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: Mikhael Brown <mikhael@hpcmmp13.sj.hp.com>
Subject: re desolving styrofoam?
Message-ID: <199608062230.AA261510629@hpcmmp13.sj.hp.com>

Terry had asked about removing the styrofoam used as a spray on packing material. I had the same problem with an HT-37 and could not find any solvent that would remove it. I let it sit round for about 6 months and found that it got dryer and seemed to come off easier. I ended up using a razer blade to remove it from the paint. This worked pretty well. It seems that it degrades over time much faster than paint so if wait long enough it should just brush off. You might try just putting the NC-57B in the sun for a few weeks or Months and see if that will break it down. Most of my kids plastic toys don't last long in the sun light. That will probably make the paint fade so you may have to repaint it.

I understand how you must feel Terry. The HT-37 I got was a 9.5 cosmetically and the styrofoam stuff covered the Hallicrafter logo.

For anyone who uses that stuff PLEASE, seal off the radio VERY, VERY well before pumping that nasty styrofoam into the box.

Just my $.02 worth

Mike N6WIG

> Gang,
> Is there something that will desolve sytrofoam? A friend has a NC-57B that was shipped to him using the spray in styrofoam and the plastic bag covering the radio leaked the stuff onto the radio. Says it won't cut with acetone, paint thinner or anything else he has tried. Before he sands it all down I would like to find out if there is something that will cut this.
>
> Terry

--
&v1S***********************&v0S***********************&v4S*********************
**

```
&v4S           __
&v4S          / /\      &v0SM I K H A E L    B R O W N
&v4S         / /  \
&v4S __     /_/ /\ \
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&v4S\ \ \/ /\\ \ \/ /   &v1S UNIX e-mail...: &v2Smikhael_brown@sj.hp.com
&v4S \ \ \/  \\ \ \/
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&v4S    \ \ \_\/ \ \ \  &v1SAddress..........: &v2SCMCD Product Engineering
&v4S     \ \ \    \_\/                      &v2S39201 Cherry Street
&v4S      \_\/                              &v2SNewark, Ca  94560
&v4S
&v1S************************&v0S************************&v4S**********************
***
```

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: "D.D. Todd" <dube3@n-link.com>
Subject: Re: desolving styrofoam?
Message-ID: <3208032F.6CD0@n-link.com>

Terry Burge wrote:

> Gang,
> Is there something that will desolve sytrofoam? A friend has a NC-57B that was shipped to him using the spray in styrofoam and the plastic bag covering the radio leaked the stuff onto the radio. Says it won't cut with acetone, paint thinner or anything else he has tried. Before he sands it all down I would like to find out if there is something that will cut this.
>
> Terry

I tried to glue some styrofoam sheets onto my garage door once, in order to hold down the heat (the door faced the afternoon sun). I tried contact cement and all it did was melt the styrofoam.

Since you probably don't want to use contct cement for your problem, try Xylene or toluene. It will melt it also; but be careful!!! with it.

--
73,
Dube Todd   K4DWW   dube3@n-link.com

If we had to tolerate in others all that we permit in ourselves, life would
be completely unbearable.
- Georges Courtelline

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: JOHN_SEHRING.parti@ecunet.org
Subject: DRAKE 4C TUBE REPLACEMENTS
Message-ID: <9608062100.aa29423@pcusa01.ecunet.org>

Neal, do you use the ss tube replacements in your R-4C?

-John Sehring (08/06/96 5:52 pm MT @Baker, Montana) UCC wb2eqg

---

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: Neal McEwen <nmcewen@metronet.com>
Subject: Re: FS: Drake 4C line tube replacements
Message-ID: <3207D9F9.3B85@metronet.com>

GE BAers,
I was overwhelmed with the response for people wanting the Drake 4C line tube replacements by Sartori. Wow, I could have sold a bunch of them ! The first customer was WA5TVM, so he gets them. Wish I could have helped and responded individually to all of you.
I really figured I'd get flamed for a solid state posting! I guess 7 and 9 pin tubes are getting hard to find.
--
73 de K5RW, Neal McEwen nmcewen@metronet.com - Richardson, TX (Dallas)
WWW Page for Telegraph Key Collectors and Historians
http://fohnix.metronet.com/~nmcewen/ref.html

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: Steve Ellington <n4lq@iglou.com>
Subject: FS: GLOBE CHIEF
Message-ID: <Pine.GSO.3.93.960807155959.29387A-100000@iglou>

Globe Chief transmitter. Extra dirty, cabinet very rusted, some tubes including the final missing. Front panel is all there, original with all knobs, lettering and dials. VFO seems to turn smoothly etc. This would make an excellent parts rig or a real challange to restore. Inside, it appears that the modulation transformer has been replaced with a non-standard unit. Included with the transmitter is a drawer full of tubes that may or may not work. Finally, you get a huge pile of spare parts including transformers, chassis, misc. cabinets and a good supply of spider webbs.

If you act quickly, a metal office desk will most likely be included. It's in nice conditon but REAL dirty. You will need a pickup truck or van to haul all of this. Location is about 50 miles south of Montgomery, Alabama.

$100 for everything.

Steve Ellington N4LQ@IGLOU.COM Louisville, Ky

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: "Lahlum-FLR111 Ross" <ross_lahlum@msmail.wes.mot.com>
Subject: FW: Noise Contest
Message-ID: <9608070242.AA04346@kay.wes.mot.com>

Hey, don't throw away that VCR! In many cases the noise from the digital circuitry is radiated from the cables exiting the unit. Try a clamp-on ferrite absorber & see if the noise goes down!

73,
Ross KB9JJR
ross_lahlum@msmail.wes.mot.com

Just to throw in my two cents worth, I too have had a "mysterious noise" pestering me. I did finally locate it. It is the VCR. The timer and clock are the offending part of the beast. If they're not set, they're quiet. If you stop the infernal blinkking, it generates a noise very similar to the descriptions of the last several posts.

> The obvious solution here is to rid one's self of ALL SS microprocessor
based gear.
> Yeah, right!! Fat Chance
>
>

KIM
kherron@vixa.voyager.net

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: "Rhett T. George" <rtg@ee.duke.edu>
Subject: HP-130's
Message-ID: <9608071413.AA14935@feller>

- Greetings -

Bobbi, Ross, and others. I have come close, having access to manuals for
HP 130-A and 130-B. Whether close means "all the essential features" or
"90 ft bridge on a 100 ft wide river," I do not know. Let me know if there
is some piece of information, maybe schematic, that may help you decide
the usefulness of the manual as regards your need. If there is, I'll try
to get it to you.

73   Rhett - KE4HIH

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: w7ni@teleport.com (Stan Griffiths)
Subject: Re: HP130C
Message-ID: <199608070941.CAA16164@desiree.teleport.com>

>   ...Darned if H/P did't paint the thing Tek blue! I was expecting tan
>as usual--do you suppose they were hoping it was a magic scope color? ;)
>(Also has a tag reading AIRESEARCH or A I RESEARCH on the back. Sure
>hope it can't beat me at checkers!)
>   Anyhow, if you've an H/P 130C 'scope manual, I'm interested in a copy,
>and will cover costs, postage, etc.
>
>   73,
>   --Bobbi
>

I remember a company in LA by the name of Airesearch that had a lot of
scopes in the mid '60s. Maybe this was an instrument surplused by them?

Also, if anybody cares, you can buy spray cans of Tek blue paint and paint
ANY HP scope blue. I knew a fellow scope technician that I worked with at
Tek in the scope calibration area in 1961 who actually painted his '53 Ford
with Tek blue spray cans . . . took something like 20 cans at $2 each. It
looked aweful.

Stan w7ni@teleport.com

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: "Roberta J. Barmore" <rbarmore@indy.net>
Subject: Re: HP130C
Message-ID: <Pine.SUN.3.91.960807100006.2076D-100000@indy3>

Hi, Stan & gang!

H'mmm, this 'scope's an ex-Califonian, so Airesearch in LA is probably the source.

As for the color, it appears to be original--or someone did a really super job on the engraved lettering! Two-tone, just like later Tek stuff; front panel is baby blue, case is medium/dark blue. (And I can see how this wouldn't be all that nice on a car! Never liked baby-blue front panels on instruments; we used it on some of the production-line test gear at Essex and it *really* showed skin oil. OTOH, it does encourage the user to keep the gear clean! ...But on a car, eeeeeeeee....)

So I still 'spect somebody, either at H/P or Airesearch, decided blue was a magic scope color. <wink>

73,
--Bobbi

(For the record and IMHO only, I like Tek video test gear & RF-region scopes & spectrum analyzers but prefer H/P for audio test stuff. Both of 'em made nice RF test generators, though. Patents +c aside, Tek always seemed to have a better handle on *looking* at fast things, and H/P at slow!)

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: Steve Ellington <n4lq@iglou.com>
Subject: Re: HW-16 keying question
Message-ID: <Pine.GSO.3.93.960807001551.9537B-100000@iglou>

>
> Why wouldn't that diode also attenuate RF coming into the rcvr while
> in the receive mode?
>

That diode is reverse biased during transmit which causes the diode to have a very high resistance. During receive, the diode is forward biased causing it to have a very low resistance. Hence (diode switch). It's a very fast and silent switch resulting in excellent qsk. There is nothing to worry about as far as the front end is concerned because the front end is a TUBE which can take plenty of abuse.

Steve Ellington N4LQ@IGLOU.COM Louisville, Ky

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: "David L. Thompson" <thompson@mindspring.com>
Subject: Jacksonville
Message-ID: <199608070304.XAA01568@itchy.mindspring.com>

Guess its up to me to make a post on the Jacksonville (FL) Hamfest.

Remember this will be the site of the 1997 ARRL national Convention.

I met up with Larry KQ4BY and we spent Saturday trying to sell the BA equipment we had to sell. Therer just did not seem to be much interest. A few BAers came by, but there was not a group ready to buy as with Atlanta and other hamfests I have seen posted. Larry had a Heath HW101/PS, Lysco 600, very nice BC221, a WRL 6 and 2 meter transmitter and an S-19R Sky Buddy. I had a very clean S-85 and Swan 350/400 Power Supplies. I did sell a number of copies of my Amateur radio mail Order catalog and other items and Larry sold capacitors and non-inductive (at least they said non-ind) resistors, but we were disappointed to bring home so much.

We were able to walk around and saw a few interesting pieces:

SB-300/400/PS $300
TR-3/RV-3 $225 (No PS)
HQ110 awful condx $50
30L1 looked good started at $550
many D-104 etc mics
Larry saw a GSB201 amp
Viking Thunderbolt rough, no cover or bottom with extra 4-400's for $100
Much test equipment
Some surplus gear

I did not buy anything and Larry picked up a Hammarlund Speaker.

Dave K4JRB

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: Lrware@aol.com
Subject: Larry's want list....
Message-ID: <960806202349_379264612@emout16.mail.aol.com>

Hello folks, anyone planning to make the trip to Shelby and is looking to part with any of this list should e-mail me. Perhaps we can make a deal and arrange pick-up during the hamfest.

Larry's (I have cash! Honest!) want list:

Working R-390A
Any condition National RAO-X
Any strange VLF, LF receivers.
Heath "most accurate clock" or equivlent.
Drake R8A or similar... (sorry Jack, but I need something small,
I know, I'm a heathen!)

Any Tek 7000 equipment, including test fixtures.
A Tek 465,475 or 485.
Any Tek 500 series equipment, (scope cal modules will get me drooling!)
Any strange, unique, wonderful, weird, odd test equipment, (old or new.)

If you are ready to part with any of the above... Lets talk.

Crazy Larry's Home for Wayward Old Test Equipment & Radios (tm)
Let your test equipment retire in sunny Florida, with all the other old Farts.
Intensive Care, Private Bench Space, Good Care Guaranteed or double your junk back!

-Larry Ware
lrware@aol.com

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: "F r6fqHo!ht" <75121.100@CompuServe.COM>
Subject: Manual for SRT transmitter
Message-ID: <960807050709_75121.100_FHI32-1@CompuServe.COM>

Gang!

I have been looking for a manual for the SRT line of transmitters for a while. The main reason was to identify the pin-out for the connectors on the associated antenna tuner.

I have finally found a part number of the tuner. It is the TN-229/SRT part of the Navy SRT-14,15 &16. It is properly called an RF "Tuner" (not the rf coupler which I have been using) and the "coupler" CU-372/SRT is a different animal...but part of the same system.

The output of the transmitter goes to and through an antenna coupler, then to the antenna tuner and then back to the coupler before the RG cable goes to the 35' whip antenna.

Anyone care to try and explain why so many trips around from unit to unit?   What is the electrical difference between the antenna coupler and tuner? I have the tuners, and they have the most beautiful large roller inductor in it. What would be the purpose, then of a coupler? sign me confused!!

Regards from Hawaii,
Raymond J. Cote

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: "August H. Johnson" <kg7bz@whitemtns.com>
Subject: Re: Manual for SRT transmitter

Message-ID: <3208A8BF.7B93@whitemtns.com>

F r6fqHo!ht wrote:
>
>   Gang!
>
>   I have been looking for a manual for the SRT line of transmitters for a
> while. The main reason was to identify the pin-out for the connectors on the
> associated antenna tuner.

I've just come into posession of a manual copy (soon to have the hardware), but
it's
missing the schematics of the tuner and coupler. The instructions for making all
the
adjustments in them is there though. I'll look through the rest of the manual and
see
if I can find anything about the connections in another section. I'm not lucky
enough to be getting the tuner or coupler, just the AN/SRT-14. My manual copy is
complete except for the above mentioned schematics, I guess whoever was making the
copy didn't feel it necessary to copy those pages since they didn't have the
equipment.

>   Anyone care to try and explain why so many trips around from unit to
> unit?   What is the electrical difference between the antenna coupler and tuner?
> I have the tuners, and they have the most beautiful large roller inductor in it.
> What would be the purpose, then of a coupler? sign me confused!!
>

I hadn't looked real closely at this since I don't have these parts, now you've
got me
interested. I'm going to look at how they are all connected and see what's going
on!

August

--
August Johnson KG7BZ   AMI 733   http://www.whitemtns.com/~kg7bz
P.O. Box 795
Pinetop, AZ 85935

(520) 367-0592

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: Don Reaves <dr@cei.net>
Subject: Re: Morrow Radio need info
Message-ID: <Pine.LNX.3.91.960807002325.24606A-100000@kc5jh.reaves.net>

Hello Steve,

> A friend of mine received in a group of radios the following:
> A Morrow 5BR-1 or maybe 55BR-1. If anyone has anything on this
> radio please respond to me at smiller@motown.lmco.com
> Thanks
> Steve Kd2Ed
>

I have a manual for a 5BR-1. It's a ham band converter for an automobile radio. 10-80meters, 1525KC output, 12AT7, 6BA6, 6CB6, slide rule dial.

73

Don Reaves WA5BBS   dr@cei.net
46 Arbor Oaks Drive
N. Little Rock, AR 72120

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: knudsen@gvmail.ih.lucent.com
Subject: Re: NC-270 prices
Message-ID: <9608071543.AA05201@bock.ih.lucent.com>

I recently sold an NC-270 with matching speaker, for about $150 if I remember right, actually less since I think that included shipping.

It's a smooth-operating, nice looking little ham-only radio. Even the 6-mtr band picks up static and noise.

Mine was pretty nice looking and working almost 100% (the slot filter alignment was way off and I couldn';t for the life of me find its correct setting).

BTW the audio output is plain old 4-8 ohms, so any old`speaker will do if the original unit isn't part of the deal. But the matching unit looks pretty cool with the RX, especially when the latter is propped up on its "flip foot" (probably National's single greatest invention since James Millen split -- why didn't more radios have that nifty piece of human engineering?).

Gud luck on your quest es 73, mike k aa9rg

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: Kim Herron <kherron@voyager.net>
Subject: Re: Noise Contest
Message-ID: <199608070205.WAA03728@vixa.voyager.net>

>Hi Gang,
>
>   Just to throw in my two cents worth, I too have had a "mysterious noise" pestering me. I did finally locate it. It is the VCR. The timer and clock are the offending part of the beast. If they're not set, they're quiet. If you stop the infernal blinkking, it generates a noise very similar to the descriptions of the last several posts.
>   The obvious solution here is to rid one's self of ALL SS microprocessor based gear.
> Yeah, right!! Fat Chance
>
>

KIM
kherron@vixa.voyager.net

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: "Benjamin D. Hall" <bdhall@ghgcorp.com>
Subject: Re: Noise Contest
Message-ID: <3207FFA1.71CF@ghgcorp.com>

Kim Herron wrote:

>   The obvious solution here is to rid one's self of ALL SS microprocessor
> based gear.

Heh heh heh... One thing that creates tons of hash around here is the video card to my computer, with a close second being the computer itself. I'll get rid of the computer as soon as I find a non solid state unit that is almost as fast and will run off standard 200 amp household power...

Number three hash producer is the light dimmer. However, I must admit that the apartment here in Houston is only slightly noisier than the parent's house in the sticks of Huntsville, Alabama... Go figure!

Thanks and 73,
Ben
--

```
From boatanchors@theporch.com  Wed Aug  7 01:01:22 1996
From: w0ogh@ix.netcom.com (Larry Godek)
Subject: Nov. 1946 radio News.
Message-ID: <199608070502.WAA28576@dfw-ix6.ix.netcom.com>
```

A couple of other items I have stumbled across (literaly) in this 1946 issue is a review of the COllins 30K transmitter, Converting the SCR-522 and among other things a shor product review of the Hallicrafters "home receiver", the "Echophone Model EC-113" , a 5 tube (plus rectifier) AC-DC table model unit. Sez it covered three bands, 535 to 1625 kc, 2200 to 7100 kc and 6900 to 22,00 kc. Anyone seen or heard about one of these? I don't have any reference books concerning Hallicrafters so don't know "nuttin".

larry W0OGH@ix.netcom.com

```
From boatanchors@theporch.com  Wed Aug  7 16:47:39 1996
From: heikud@directcon.net (Dennis Heikura) (by way of heikud@directcon.net
(Dennis Heikura))
Subject: Parts for HW-101
Message-ID: <199608071700.KAA13792@zeus.directcon.net>
```

Hi folks, need the following for the Heath. HW-101 im reviving. Hopefully
somebody
has a junker or the items stashed in their junk box. Here goes:

    S-Meter. Can come from SB-300 series receiver

    Tube shields. These are the corrugated looking type used on printed
    circuit board tube sockets with the metal grounding finger. Need:

        1ea. 9 pin shield by 2 inches long for 6CL6.
        1ea. 9 pin shield by 1 3/4 inches long.
        1ea. 7 pin shield. Reg size.

    Cabinet front plastic extension feet.

    4 rubber feet.

8ea. 6x32 speed nuts. These are the flat sheet metal plate type that slide over a panel edge. (Used with screws on the 101 to hold the cabinet halfs together.)

Thats about it. The radio is up and running now. Borrowed shields from a friend. I learned a good lession on this one. Make sure any required shields are in place. This rig would go into terrific self oscillation when checking the bias on 20 & 15. O/K on other bands. Had me stumped for a bit. Thought it was a neutralization problem.

Thats about it. Any help with the parts or a source will be greatly appreciated. Thanks!

73
Denny----WB7EGG/6

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: "Scott Alfter" <salfter@accessnv.com>
Subject: Re: Precision "Electronamic" Tube Tester (was Re: Precision Apparatus Electronometer?)
Message-ID: <199608070048.RAA19701@kitfox.anv.net>

Jack Harper <jharper@bs2000.com> wrote:
> It does have a tube -- a type "80" rectifier -- which is, I think, just part
> of the power supply (I think).

Yes. It provides the DC voltages used at various points to test a tube's operation. The power supply circuitry uses a kinda small filter capacitor (.1 μF, if I remember right), though, so you end up with a measurable (on the order of 5-10 VAC) amount of ripple.

A question for the list: Would it be safe to bump this capacitor up to get rid of the ripple, or should it be left alone?

> I think it is also not only a tube tester but a VTVM as well...

Close...it doubles as a 2k-ohm/volt VOM. It takes a 4.5-volt battery to work most of the resistance ranges (wouldn't be hard to throw a battery holder and three AAs inside, but I already have a couple of DMMs to play with, and I'd need to make probes that'd plug into those weird skinny jacks this thing uses).

Scott Alfter
salfter@accessnv.com

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: Jack Harper <jharper@bs2000.com>
Subject: Re: Precision Apparatus Electronometer?
Message-ID: <199608062230.QAA15155@lynx.csn.net>

At 13:15 8/3/96 -0500, you wrote:

> Jack,
>
> Literally, electronometer would be meter of electrons. That's
> usually reserved for small quantities of them (otherwise Amperes)
> and is usually written 'electrometer'. Does the thing look like
> it's built for very high resistance at the input? What does the
> scale have for range and units? A real electrometer of that
> vintage has to have a glass vacuum tube in it somewhere.
>
> Curiously,
> Bill Hawkins bill@skeeter.frco.com

I have not yet disassembled it -- however, I received a faxed schematic today.

The scale has several ranges: "Replace/Good", Decibels, AC Volts, DC Volts, and 0 - 100megohms.

It does have a tube -- a type "80" rectifier -- which is, I think, just part of the power supply (I think). There is also a large neon bulb which I first thought might be some type of "magic eye" -- but it is only, I think, an incredibly large neon bulb used as a "short indicator".

I think it is also not only a tube tester but a VTVM as well...

Regards to all

Jack, KC0LR (Friend to all things Hammarlund)

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: Kevin McDonald <kevin.mcdonald@tivoli.com>
Subject: Re: R-390a AGC Problem
Message-ID: <3208BC13.6462@tivoli.com>

Phillip A Rand wrote:

>   The darn thing plays very well but no AGC--the front end overloads
> even on AM. Have to back the RF gain off to keep from distorting. It's
> plenty sensitive enough but also notice that the Carrier Level Meter is
> very slow to operate--very insensitive.

My Collins 390A (1955) is about the same. The schematic shows 4 or 5 caps in the heart of the AGC circuit - is that the best place to start?

Can I exchange the IF deck from my late model 390A EAC (1968) to isolate the problem? were these subassemblies modified over the years? The AGC in the EAC model works great.

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: BRIDGERS@gonzo.ccl.org
Subject: R-390A power switch sticking
Message-ID: <960807090526.204088d9@gonzo.ccl.org>

Been there, done that, sorta solved the problem. What worked for me was to remove the switch from the panel, and while pushing in the switch activator rod as far as I could, spray WD40 into the opening. Not much will seep past the rod, and I repeated the sprayings several times. Bottom line: my switch stuck no more. Incidentally, you will find that or you may find as I did, that remounting the switch on the panel has to done by slight adjustment of the tension on the screws to get the switch to activate properly...

Another method that I have not tried, but read about in HSN, is to drill a very small hole in the top of the switch at roughly a 45degree angle as far as it takes to reach the well of the switch. Then apply the WD40. With my luck, I figured I'd just mess up the switch. So I've stayed away from that approach.

73's
Tom   KE4RHH   Bridgers@Leaders.CCL.org

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: "D.D. Todd" <dube3@n-link.com>
Subject: R-390A power-down problem
Message-ID: <32082DCD.16C3@n-link.com>

Here's an unusual failure: R-390A won't turn off! It turned out to be a problem with a
microswitch that is mounted on the function switch.

The radio has a microswitch that is operated by a cam on the function switch, and it appears to be wired in the "normally closed" mode. When the function switch is rotated to the "off" position the cam contacts the microswitch actuator and opens it. In all other function positions the cam moves away from the microswitch and it stays closed.

I don't know if the microswitch malfunctioned or if wear on the operating cam kept it from actuating the switch; but after I removed the switch I found it to be working normally. I then replaced it and it continued to function normally. There doesn't seem to be any kind of adjustment for the switch-to-cam clearance, other than maybe bending the switch bracket, so I just buttoned it back up.

--
73,
Dube Todd   K4DWW   dube3@n-link.com

If we had to tolerate in others all that we permit in ourselves, life would be completely unbearable.
- Georges Courtelline

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: John Kolb <jlkolb@cts.com>
Subject: Re: R-390A power-down problem
Message-ID: <Pine.SCO.3.91.960806234527.7214A-100000@sd.cts.com>

On Tue, 6 Aug 1996, D.D. Todd wrote:

> Here's an unusual failure: R-390A won't turn off! It turned out to be a problem with a
> microswitch that is mounted on the function switch.
>

Dallas Langford has written about repairs to this microswitch a couple of times in Hollow State Newsletter, even taking the switch apart and polishing the contacts - seems like that's a frequent failure.

Could be the spacing to the cam in this p[articular case, but I would suspect the contacts welded themselves shut, and you managed to free them up. If it happens again, you'll know the switch requires replacement, if a replacement can be found, or extraordnary measures to repair.

73

John Kolb KK6IL jlkolb@cts.com

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: dma@IslandNet.com (Jan Skirrow)
Subject: Re: R-390A power-down problem
Message-ID: <m0uoBWC-000VuoC@comm.amtsgi.bc.ca>

>On Tue, 6 Aug 1996, D.D. Todd wrote:
>
>> Here's an unusual failure: R-390A won't turn off! It turned out to be
>a problem with a
>> microswitch that is mounted on the function switch.
>>
>
>Dallas Langford has written about repairs to this microswitch a
>couple of times in Hollow State Newsletter, even taking the switch apart
>and polishing the contacts - seems like that's a frequent failure.

The info on disassembling and repairing this switch is included in one of
the R390A threads on my website. http://www.islandnet.com/~dma/Boatanchors/

Jan Skirrow, VE7DJX
dma@islandnet.com

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: philw7xk@juno.com (Phillip A Rand)
Subject: R-390a Problem
Message-ID: <19960807.062148.7591.0.philw7xk@juno.com>

Good morning all 390 folks,
Just yestereday got a "new" 390 and locally too. Have watched over the
months, all the 390 traffic with awe.
Turns out to be in very nice shape and it's manufactured by Electronic
Assistance Corp with serial number 1119.
The darn thing plays very well but no AGC--the front end overloads
even on AM. Have to back the RF gain off to keep from distorting. It's
plenty sensitive enough but also notice that the Carrier Level Meter is
very slow to operate--very insensitive.
Have done all the obvious things such as checking tubes,reseting the
meter and rx sensitivity with no luck. What am I missing?????
Any help will sure be appreciated but sure happy with the rx as
is--looks great and plays great. Oh yeah, the dail is stiff but have'nt

gotten to that yet. Paid 100 bux and was a local pickup here in our
little town of Klamath Falls, Oregon. Amazing what you find sometimes in
little towns.
   Thanks in advance for any assistance--need all the help I can get!!

   73,

   Phil

   philw7xk@juno.com

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: "Jim Berry" <basalop@eskimo.com>
Subject: RAO's, NC-101's and 127's
Message-ID: <199608062212.PAA23473@mail.eskimo.com>

Hello BA fans,

Want to thank everyone who helped me get straightend out on the RAO recievers. If I have it all correct, I think I have a idea of what I want. The following two receivers I would like setting side by side on a desk.

In the back of my receiver book, page 123, by Moore (3rd edition) I discovered a picture and discription of the National NC-127. Now this is a Navy WWII receiver. Has the big thumb screws around the panel, Navy tag on it, dial setting chart, rack handles, shock mounts.
4 bands, .54 to 30 Mhz, 455 Khz IF, Crystal filter. Tubes: 2 6K7 RF,
6J7 MIX, 6J5 HFO, 2 6K7 IF, 6C8 DET/NL, 6J7 BFO, 6F8 AF1/AVC,
6V6 AF, 5Z3 RECT. Remarks: Low radiation receiver with
additional RF stage added on the back. Similar to NC-100XA

NC-101XA covered 5 ham bands, 160, 80, 40, 20 and 10 meters. 455 khz IF, crystal filter. Tubes: 11. Remarks: Ham band only version of NC-100A. Direct reading dial, noise limiter and "S" meter.

I am going to be on the lookout for the above mentioned receivers, and anything in between. Keep me in mind if you hear of something.

73 Jim K7SLI

***
Jim Berry K7SLI. QTH: Marysville, Wa (Near Seattle)
Email: basalop@eskimo.com FAX: 360-659-1360
Ham Digital: K7SLI @ K7SLI.#NWWA.WA.USA.NA
***

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: merrigan@ee.ualberta.ca
Subject: Re: re desolving styrofoam?
Message-ID: <199608062347.SAA22838@uro.theporch.com>

WHICH: <199608062230.AA261510629@hpcmmp13.sj.hp.com>
WHEN: 08/06/96 at 05:25 PM (SystemDate:MDT)
WHO: Mikhael Brown <mikhael@hpcmmp13.sj.hp.com>
WHAT: re desolving styrofoam?.

I say:

>You might try just putting the NC-57B in the sun for a few weeks or
> Months and see if that will break it down. Most of my kids plastic
> toys don't last long in the sun light. That will probably make the
> paint fade so you may have to repaint it.

Probably exposure to UV radiation breaking down the foam. Here is a thought:

take the BA to a tanning studio, and book it in for a couple of hours!!
<grin>

Seriously though, if nothing else works, this might be worth a try.

Shaun

--
----
merrigan@nyquist.ee.ualberta.ca
Electrical Engineering Student
University of Alberta
Edmonton, Alberta, Canada

"I am an old man now, and when I die and go to Heaven there are two matters on which I hope for enlightenment. One is quantum electrodynamics, and the other is the turbulent motion of fluids. And about the former I am rather optimistic."
-Sir Horace Lamb, 1932

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: Larry Keith <KQ4BY@IX.NETCOM.COM>
Subject: Same stuff, different hamfest...
Message-ID: <32085E10.7201@IX.NETCOM.COM>

Well, if you can't sell in Jacksonsville, take it to Crossville, TN. That's my plan for this weekend. Are we going to have any listmembers, there?

I plan to arrive early Saturday, unload my wares, and hunt down some new and improved boatanchors. Who knows what can be found in those Tennessee hills...?

73,

Larry, KQ4BY

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: vancleef@netcom.com (Henry van Cleef)
Subject: Re: Scope Probes
Message-ID: <199608062337.SAA15985@netcom5.netcom.com>

As don merz discourses

>
> I'm not sure I understand 'scope probes. They seem to have a capacitance spec
> that is related to the lead length (more lead=more puffs). Then some
> 'scopes seem to want probes with a specific capacitance spec. Why?..and
> what goes sour when there is a mismatch beween 'scope and probe? Please
> pass along your knowledge on this...
> Thanks.
> Don, N3RHT
> 71333.144@compuserve.com
>
>

The answers to this are in a fairly simple analysis of a divider network. Scope inputs are typically 1 megohm DC resistance with some capacitance value in parallel. Value depends on the scope. Reason for having a capacitance in parallel is that the input to the scope vertical amplifier presents a parallel capacitance, and the value is increased somewhat and maintained for all the volts/centimeter (you DO use a large TEK scope with centimeters, of course) settings on the range switch.

A 10X probe in front of this presents 10 megs resistance at the probe tip. If the cable had no capacitance, it would present 1/10 the scope input capacitance. Since the cable has capacitance, it has to be driven by the input signal, although it is attenuated substantially. On most probes, this is an adjustable value---you simply set the parallel capacitance, which drives the capacitance following the attenuation resistor, so that you get a clean square wave.

Tek probe cables were resistive to prevent ringing. The signal travles about 9 inches a nanosecond in a 50 ohm characteristic impedance environment, so a 6 foot cable has a electrical length near 7 nsec, or 14 nsec for unterminated in-and-back reflections---a nasty mumber on a scope with a 10 nsec risetime (35 Mhz). The resistive cable was patented by Tek.

If the parallel capacitance shunting the attenuation resistor is too low, a square wave will have a rounded corner at the end of the voltage transition. If the capacitance is too high, it will have an overshoot on the transition.

All Tek plug-ins have adjustments in the input attenuator. One is to set the shunt capacitance in the attenuator. It is set to give a good square wave. The other is to make the input capacitance standard for all attenuator positions, so that a properly-compensated probe will stay properly compensated when changing the input sensitivity. Tek used a standard attenuator box for doing this, but you can make one yourself if you have a capacitance bridge.

The gimmick is that the ratios betwen the resistances in series and the capacitances in series, shunting the resistances, must match. Since you move a shunt capacitance when changing the input attenuator, you have to switch in compensating capacitances so that the capacitance seen at the input, behind the probe, remains constant.

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: w7ni@teleport.com (Stan Griffiths)
Subject: Re: Scope Probes
Message-ID: <199608070941.CAA16113@desiree.teleport.com>

>I'm not sure I understand 'scope probes. They seem to have a capacitance spec
>that is related to the lead length (more lead=more puffs). Then some
>'scopes seem to want probes with a specific capacitance spec. Why?..and
>what goes sour when there is a mismatch beween 'scope and probe? Please
>pass along your knowledge on this...
>Thanks.
>Don, N3RHT
>71333.144@compuserve.com

There has already been a couple of good replies posted to this question but here goes anyway.

There are really TWO separate capacitance issues involving probes. One of them is "how much capacitive loading will the probe impart to the circuit you connect it to" and the other is "what range of scope input capacities will this probe compensate to?" The second of the two issues applies only to "attenuator probes" and not "X1" probes.

This first one is important since connecting a probe to a circuit will actually change how the circuit is performing. For example, if you connect a scope probe to the RC components of an oscillator, you will likely change the frequency of the oscillator since the probe capacity will be in parallel with the frequency determining components of the oscillator. The probe with the lowerst tip capacity will have the least effect on the circuit you are testing.

Probes also have resistance to ground. A "X10" probe generally has 10 megohms to ground as compared to an X1" probe which has the scope input resistance, usually 1 megohm, to ground. So a probe actually loads the circuit under test in two ways at the same time: capactitively and resistively.

So what is the circuit loading capacity of an "X1" probe? First, it will be the input capactiance of the scope you connect it to and then you must add the capacitance of the cable the probe has. Yep, the longer the cable, the more capacitance it has.

When you use a "X10" probe, you essentially isolate the cable and scope input capacity from the circuit by putting a very small capacitor (in the probe tip) in series with them.

Of course, using a "X10" probe cuts the signal down by a factor of 10 so this is a disadvantage for very small signals. You can often make up for the loss of signal amplitude by cranking up the scope gain, within limits, of course.

In a previous post, I said there were a bunch of "special" probes that can do great things. On of them is a FET probe . . . excuse me, I should have said "cathode follower probe" which is an earlier toob version. Anyway, a cathode follower probe has a very high input impedance, meaning high resistance and low capacitance, and a gain of "X1", or no attenuation. These are generally good for high frequency use with little circuit loading and X1 sensitivity. You don't get this great performance for free, however. Cathode follower probes generally cannot take signals that are more than a few volts in amplitude without running out of dynamic range which results in distortion of the displayed signal. They are most often used on sampling scopes with 50 ohm input resistance to give them a much higher input resistance, like one megohm.

Well, gosh, it looks like you asked me the time and I told you how to build a watch again. Sorry.

If there is room in my new book, I will try to include a section on probes. They are really a key element to making the best use of your scope. A lousy probe can ruin the performance of the very best scope. I think what is needed is a listing of all the different probes Tek has made since the beginning showing their input C (circuit loading C), their input R (circuit loading R), and the range of scope inputs they will compensate to. Then if you know the scope type and its input C, you will know if the probe will be compatible or not. The only other thing you need to know is the bandwidth of the probe so you can be sure it is as high or higher than the scope you plan to use it on. You can already find a lot of this data in old Tek catalogs. The problem is, when a probe or scope went out of production, the data on that probe or scope was removed from the catalog and it was hard to know if your old probe would work with your new scope or vice versa. What the world needs is a composite chart of 50 years worth of probe and scope compatibility data. Come to think of it, that is a HUGE amount of data and I suspect it will have to wait for volume 3 . . .

BTW, 1996 marks Tek's 50th birthday and the celebration is August 10th. Retiree's are NOT invited (can you believe that!) since there are many more of them than current employees. I wangled an invitation because they borrowed some of my vintage scope collection to put on display at Tek's birhtday party. Semms I have a better collection of old Tek scopes than Tek does . . .

Stan w7ni@teleport.com

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: "David L. Thompson" <thompson@mindspring.com>
Subject: Selling those Jacksonville items.
Message-ID: <199608070319.XAA02711@itchy.mindspring.com>

Well now that I am back from Jacksonville plus doing the lawn work at the house on St. Simons, I still have several items to sell. UPS shipping and packing will need to be added to all the items.

Hallicrafters S-85 in good condition (7.5) with W7FG Manual. $85
(Works well on ALL the bands and bandspread lines up well)

Swan Power Supplies for 250, 350 and 400

412 DC Supply with connecting cables untested $35
14 C Module Converts 117 AC supply to Dc Supply $30
(Some documentation)

BOTH for $60

Hallicrafters S Meter Unused in Box Matches S-85/SX-99 et al $20

E-Mail me directly.

Dave K4JRB
thompson@mindspring.com

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: BRIDGERS@gonzo.ccl.org
Subject: Shelby Hamfest
Message-ID: <960807085234.204088d9@gonzo.ccl.org>

Larry's recent note about Shelby caused a light bulb to go on...
How many of the BA group would like to get together over lunch (around
one of the hot dog stands!) and introduce ourselves and chew the fat?
If you're interested, I'll be glad to collect all the names. Just send
me a Email, I'll get it going. I'll also figure out a way to mark a spot
near a hot dog stand for us to gather around ... or if you have ideas
about how to identify it, let me know.
See ya in Shelby,
Tom KE4RHH Bridgers@Leaders.CCL.org

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: JOHN_SEHRING.parti@ecunet.org
Subject: SWEEP ALIGNMENT
Message-ID: <9608071245.aa24296@pcusa01.ecunet.org>

Sweep alignment is the last step in getting a piece of equipment in absolute tip-top alignment.

It also lets you see the bandpass of *any* device at a glance, one pix is worth 1000 words. That goes beyond IF stages, can see action of front ends too.

Some gear *cannot* be correctly aligned without a sweep gen, e.g. anything with over-coupled IF's. That includes Super Pro SP-600, lots of Hammarlund rx's, older broadcast FM rx's, older TV's, some old tube-type land/mobile FM radios (e.g. G.E. Prog Line).

`Peak the cans' does NOT work on these!

-John Sehring (08/06/96 6:46 pm MT @Baker, Montana) UCC wb2eqg

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: JOHN_SEHRING.parti@ecunet.org
Subject: SX-115 ALIGMENT W/O 50 KHZ RF GENERATOR
Message-ID: <9608062100.aa29419@pcusa01.ecunet.org>

Hallicrafters 50 KHz IF (and BFO) alignment for SX-115 (and S-76, SX-96, -100, -101, 101A, -111, too) without the need for a 50 KHz generator.

This assumes that the 1055 KHz 2nd IF is reasonably aligned (doesn't have to be anywhere near perfect).

First, you need to adjust the BFO. Tune in steady carrier from, say, xtal calib, then zero beat it carefully with BFO on. Switch back & forth from LSB to USB; juggle both BFO and rx tuning carefully until zero beat remains in either position. When done, this is the true `zero' position of BFO slug. (It also reflects the *exact* frequency of the two sideband selection xtals at the 3rd mixer.)

(BTW, the BFO knob should rotate CW and CCW by equal amounts. If not, the dohicky on the actual bfo threaded shaft needs to be adjusted. Take knob off and adjust brass adaptor. Put know back on & repeat above.)

Then to align the 50 KHz IF to 50.75 KHz you need just a fairly accurate sinewave audio oscillator strong enuf to drive a loudspeaker (or run it thru an amp first). You won't need much loudness here.

With the rx in either USB or LSB, set the BFO set *exactly* at zero (as determined above) *and* then tune a steady incoming signal *exactly* for zero beat. Do this carefully for best results.

Then, adjust the audio osc to give 750 Hz (50.75 KHz minus 50 KHz gives 750 Hz. These IF's are tuned off the one side of 50 KHz by various amounts in the different models, e.g. 50.5 and 50.75 KHz). Tune the radio off to that side of zero beat which gives the strongest s-meter reading (it'll be quite a bit weaker on the `wrong' side).

Match the cw tone from the rx with the af oscillator to w/in a few cycles or better (listen for the beat between the audio osc and the rx).

Now, peak up the 50 KHz IF cans carefully for max S-meter reading.

For a more sensitive indication of this, turn off the AGC, turn down the RF gain to well below overload and monitor detector DC voltage (junction of 820K, 1 meg & .05 in circuit of 6BJ7, same in all these rx's) with a VTVM.

-John Sehring (07/18/96 9:27 am MT @Baker, Montana) UCC wb2eqg .SEND

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: Pete McCollum 07-Aug-1996 0925 -0600 <mccollum@ssdevo.ENET.dec.com>
Subject: TCS and BC-221 info / thanks Ken W.
Message-ID: <9608071526.AA25833@us3rmc.pa.dec.com>

Below is my TCS and BC-221 info, for those that are compiling things:

[Side note: "thank you" to Ken Warren for the info you sent! - Pete]

TCS-14, including CKP-46159-A, CKP-52245-A, CCY-23270-A (control box), and 20309 (AC power supply). The first three all have serial #1456, and contract number NXSR 38314. I didn't write down the info for the P.S., but I can (let me know).

My TCS xmtr has been "HAM-modified", including some extra holes in the front panel, and some missing parts inside. Please let me know if you have a "junker" xmtr that you would part with, so that I can restore mine. The only real requirement is that the front panel must not have extra holes, etc.

I have a BC-221-T, serial #5255, made by Zenith. Didn't see a contract number or date on the outside ID plate.
Also have an RA-133 AC P.S. for the BC-221 (let me know if you want the numbers and such).
Also have the cal-book *only* for BC-221-AK serial #3, and for BC-221-T serial #2754.

I seem to be the unofficial maintainer of data related to "clandestine" radios such as GRC-109, RS-1, RS-6, and GRA-71. Please send me any data on these (if you haven't already done so).

Pete
mccollum@ssdevo.enet.dec.com

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: PasqualeNJ@aol.com
Subject: Re: TCS-11 military contracts
Message-ID: <960806205514_379292590@emout18.mail.aol.com>

William Donzelli
: For your records:
All are Collins Mfg.
Antenna Loading Coil, COL-47205,
Receiver, COL-46159, Unit of TCS-11,
Trans. COL-52245, TCS-11, Accepted by Navy, Feb. 25, 1944.

All are Same contract   (NXss-33361) and
All have same Serial # 554.
Also have the Collins 110/220v power supply, no data plate, it is believed to be : rectifier power supply, 20309.
Hope this helps, PasqualeNJ@AOL.com

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: Terry Neal <tmneal@pacbell.net>
Subject: Trade my 1.5kc filter 4 ur 6kc -75A4
Message-ID: <2.2.16.19960807110025.3007da2a@pbinet.com>

I would trade my 1.5 kc filter for your 6 kc filter for the 75A-4. Mine is in perfect condition.

Terry aa6tn

tmneal@pacbell.net

From boatanchors@theporch.com Wed Aug 7 16:47:39 1996
From: "Frank Scutch-EFS003" <Frank_Scutch-EFS003@email.mot.com>
Subject: Trade: Collins S line 6kc Filter
Message-ID: <Macintosh */PRMD=MOT/ADMD=MOT/C=US/@MHS>

Hello gang:

I have a Rockwell Collins 6kc mechanical filter (Blue label - F455FA60) for the S line that I just don't use.

I like to trade it towards:

1) Collins 75A4 6kc filter (F455J60);
2) S line 1500kc filter (F455FA15); or
3) Collins 51J4

Thanks

Frank, WB4AYJ
efs003@email.mot.com

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: Neal McEwen <nmcewen@metronet.com>
Subject: Re: WE 3B sounder / key
Message-ID: <3207DA89.4BB7@metronet.com>

Joseph Pinner wrote:

> strange). Could this be a reproduction or a restored item?
>   No! not at all, this stuff is very common and very little market for it. There are some fakes in the very early spark keys that handled high current and perhaps some in the pre-Civil War era.

--
73 de K5RW, Neal McEwen nmcewen@metronet.com - Richardson, TX (Dallas)
WWW Page for Telegraph Key Collectors and Historians
http://fohnix.metronet.com/~nmcewen/ref.html

From boatanchors@theporch.com Wed Aug 7 01:01:22 1996
From: "Richard L. Duell" <rduell@iac.net>
Subject: Re: WE 3B sounder / key
Message-ID: <2.2.32.19960807000101.006fcafc@iac.net>

At 15:35 8/6/96 -0500, Joseph Pinner wrote:
>I do not know much about keys and sounders, so can anyone give me any
>information about a Western electric 3B sounder and key?
>
>Found one at a local antique shop where we are on vacation.
>
>What are these worth (items seem in almost new condition which seems
>strange). Could this be a reproduction or a restored item?

I just picked up a few of these and found, from corresponding with Neal McEwen, that they are fairly common. However, they are easy to sell if the price is right. $20 will get takers. I'm not sure how much more you could get.

73, Rich - W5VDU

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"Don't look back. Something may be gaining on you." - Satchel Paige -